

The Indonesian BIOMEDICAL JOURNAL

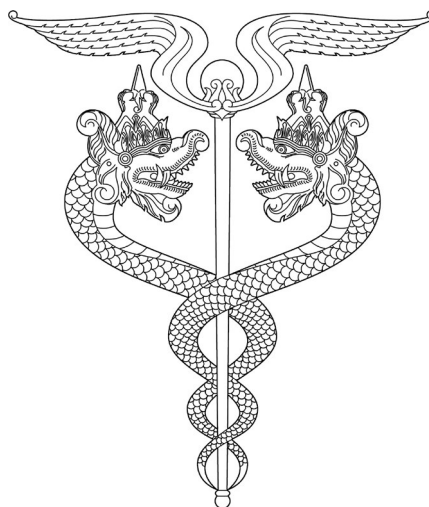
REVIEW ARTICLES

Resveratrol: A Sirtuin Activator and The
Fountain of Youth

Meiliana A, Dewi NM, Wijaya A
p.1-14

Mitochondrial Dysfunction in Stem Cell
Aging

Meiliana A, Dewi NM, Wijaya A
p.15-30



Volume 7 Number 1
April 2015

Published by



The Prodia Education and Research Institute

Secretariat

Prodia Tower 9th Floor

Jl. Kramat Raya No.150, Jakarta 10430, Indonesia

Tel.: +62-21-3144182, Fax.: +62-21-3144181

E-mail: Secretariat@InaBJ.org

Website: www.InaBJ.org

RESEARCH ARTICLES

Combination of Fibrinogen and High-
sensitivity C-reactive Protein Measurements is
Potential in Identification of Acute Coronary
Syndrome

Sargowo D, Sandra F
p.31-6

Differences in Maternal Leptin Serum Levels
between Normal Pregnancy and Preeclampsia

Yusrawati, Habibah RL, Machmud R
p.37-42

Cardiovascular Disease Risk and Barriers to
Physical Activity

Aditama L, Rahmawati D, Parfati N, Pratidina A
p.43-8

The Efficacy, Safety and Tolerability of
Retapamulin as a Treatment Option for
Impetigo and Other Uncomplicated
Superficial Skin Infections: A Meta-analysis

Ciulianto R
p.49-56

| | | | | | |
|-------------------|-------|------|--------|------------------------|---|
| Indones Biomed J. | Vol.7 | No.1 | p.1-56 | Jakarta, April 2015 | Print ISSN: 2085-3297 Online ISSN: 2355-9179 |
|-------------------|-------|------|--------|------------------------|---|

The Indonesian BIOMEDICAL JOURNAL

Volume 7 Number 1, April 2015

MISSION & VISION

The Indonesian Biomedical Journal mission is to assist, enlighten and support all health related policies by delivering information with speed. Its mission is represented by the Logo which is based on two main elements: the Caduceus Staff and naga Antaboga, which are prominent figures in Indonesian "wayang", specifically in the famous Mahabharata tale.

AIMS & SCOPE

The Indonesian Biomedical Journal is dedicated to publish original research and review articles covering all aspects in biomedical sciences. The editors will carefully select manuscript to present only the most recent findings in basic and clinical sciences. All professionals concerned with biomedical issues will find this journal a most valuable update to keep them abreast of the latest scientific development.

THE LOGO

The 'Indonesian Biomedical Journal' insignia is designed based on two main elements; the Caduceus staff and Naga Antaboga, which are prominent figures in Indonesian "wayang", specifically in the famous Mahabharata tale. Wayang is the traditional Indonesian puppetry and drama which has its root in Hinduism. It is now an ingrained part of Indonesian culture and heritage.

Antaboga's name in his youth is Nagasesa. His father, Antawisesa is a giant snake who weds the goddess Dewi Sayati, daughter of Sang Hyang Wenang, the Principal God. Due to his services to heavenly beings, Nagasesa is honoured with the title 'Bathara' or 'Sang Hyang', which means 'God'. Since then, he is called Sang Hyang Antaboga, in recognition of his new position. His other names are Sang Hyang Nagasesa, Sang Hyang Anantaboga and Sang Hyang Basuki. As a God, Sang Hyang Antaboga is master of the underworld, which in wayang rates as significant as the realm above. His palace is in Saptapratala, the seventh plane below earth.

Sang Hyang Antaboga adopts a human outlook in his customary appearance. In critical situations, he can change his form into a giant snake. He possesses a magical power which enables him to alter his exterior according to his will. As the guardian of the holy water Amerta, he is also endowed with the ability to bring back to life those who die earlier than their natural time.

With the objective of strengthening the tie between them, the Gods reward Sang Hyang Antaboga with a female deity, Dewi Supreti, for a wife. One of the children from this marriage, Dewi Nagagini, will one day marry Bima or Werkudara, the second son of Pandawa family. Bima is one of the central figures in Mahabharata story.

In Indonesian or Javanese mythology, the word 'Naga' means a giant snake. The Indonesian word for snake itself is 'ular'. It is common practice for the Indonesians however to use the two words simultaneously, hence 'ular naga,' to describe a giant snake. Ular naga is widely revered. It is believed to be sacred and bring luck.

The logo of the Indonesian Biomedical Journal, which expresses its mission and vision, is a varied adaptation of the Caduceus staff. The pair of wings on top of the staff represents the speed of information and transformation, thus creation of a new beginning. The staff itself stands for authority. Likewise, in ancient Greek mythology, the pair of snakes or in this logo; the Antabogas, symbolizes the source of life and wisdom. Their intertwining position or 'double helix' incidentally is also the shape of DNA and signifies creation and stability.

In short, the logo of the Indonesian Biomedical Journal represents its mission to assist, enlighten and support all health related policies by delivering information with speed.

Editor in Chief

Dewi Muliaty, PhD (Biomedics, Prodia Clinical Laboratory)

Senior Executive Editors

Ferry Sandra, DDS, PhD (Biochemistry and Molecular Biology, Trisakti University)
Prof. Irawan Yusuf, MD, PhD (Physiology, Hasanuddin University)

Managing Editor

Anna Meiliana, PhD (Biomedics, Padjadjaran University)

Board of Editors

Prof. Amin Soebandrio, MD, PhD (Microbiology, Eijkman Institute)
Prof. Askandar Tjokroprawiro, MD, PhD (Endocrinology, Airlangga University)
Prof. Aw Tar Choon, MBBS, Mmed (Hematology, ICON Laboratory)
Prof. Erry Gumilar Dachlan, MD, PhD (ObGyn, Airlangga University)
Marita Kaniawati PhD (Biomedics, Prodia Clinical Laboratory)
Prof. Marzuki Suryaatmadja, MD (Clinical Pathology, University of Indonesia)
Prof. Syakib Bakri, MD, PhD (Nephrology, Hasanuddin University)

Honorary Editors

Andi Wijaya, PhD (Biomedics, Hasanuddin University)
Prof. Marsetio Donosepoetro, MD (Clinical Pathology, Airlangga University)

Peer Reviewers

Antonia Anna Lukito, MD, PhD (Cardiology, Pelita Harapan University)
Cynthia Retna Sartika, PhD (Biomedics, Prodia Stem Cell Laboratory)
Prof. Djanggan Sargowo, MD, PhD (Cardiology, Brawijaya University)
Prof. Hadyanto Lim, MD, PhD (Pharmacology, North Sumatra University)
Indriyanti Rafi Sukmawati, PhD (Biomedics, Prodia Clinical Laboratory)
Jajah Fachiroh, PhD (Molecular Biology, Gadjah Mada University)
Julius July, MD, PhD (Neurology, Pelita Harapan University)
Keri Lestari Dandan, PhD (Pharmacy, Padjadjaran University)
Khie Kiong, MD, MPharmSc, PhD (Biology, Maranatha Christian University)
Laifa Hendarmin, DDS, PhD (Biochemistry, Syarif Hidayatullah State Islamic University)
Prof. Mansyur Arif, MD, PhD (Clinical Pathology, Hasanuddin University)
Melisa Intan Barliana, PhD (Molecular Biology, Padjadjaran University)
Rizky Abdullah, PhD (Molecular Biology, Padjadjaran University)
Prof. Roberto Volpe, MD, PhD (Cardiology, University of Rome "La Sapienza")
Trilis Yulianti, PhD (Biomedics, Prodia Clinical Laboratory)
Yenny Surjawan, MD, PhD (Clinical Pathology, Prodia Clinical Laboratory)

The Indonesian Biomedical Journal has been published by The Prodia Education and Research Institute since April 2009. The Indonesian Biomedical Journal, a triannually (April, August and December) published scientific journal, contains original research and review articles covering all aspects in biomedical sciences. All manuscripts will be selected and peer-reviewed to present valuable and authentic findings in basic and clinical sciences.

Contact Address

Secretariat of The Indonesian Biomedical Journal

Prodia Tower 9th Floor
Jl. Kramat Raya No.150, Jakarta 10430, Indonesia
Tel.: +62-21-3144182, ext. 872
Fax.: +62-21-3144181
E-mail: Secretariat@InaBJ.org
Website: www.InaBJ.org

Content

The Indonesian Biomedical Journal
Volume 7 Number 1, April 2015

REVIEW ARTICLE

Resveratrol: A Sirtuin Activator and The Fountain of Youth

Meiliana A, Dewi NM, Wijaya A
p.1-14

Mitochondrial Dysfunction in Stem Cell Aging

Meiliana A, Dewi NM, Wijaya A
p.15-30

RESEARCH ARTICLE

Combination of Fibrinogen and High-sensitivity C-reactive Protein Measurements is Potential in Identification of Acute Coronary Syndrome

Sargowo D, Sandra F
p.31-6

Differences in Maternal Leptin Serum Levels between Normal Pregnancy and Preeclampsia

Yusrwati, Habibah RL, Mahmud R
p.37-42

Cardiovascular Disease Risk and Barriers to Physical Activity

Aditama L, Rahmawati D, Parfati N, Pratidina A
p.43-8

The Efficacy, Safety and Tolerability of Retapamulin as a Treatment Option for Impetigo and Other Uncomplicated Superficial Skin Infections: A Meta-analysis

Ciulianto R
p.49-56

RESEARCH ARTICLE

Cardiovascular Disease Risk and Barriers to Physical Activity

Lisa Aditama^{1,*}, Dewi Rahmawati², Nani Parfati¹, Astrid Pratidina¹

¹Faculty of Pharmacy, University of Surabaya, Jl. Raya Kalirungkut, Surabaya, Indonesia

²Postgraduate Program in Pharmaceutical Science, University of Surabaya, Jl. Raya Kalirungkut, Surabaya, Indonesia

*Corresponding author. E-mail: lisa_aditama@yahoo.com

Abstract

BACKGROUND: The prevalence of obesity is increasing and tends to be higher in adult population groups who are also more educated and employed as a civil/military/police/officers. This study aims to analyze cardiovascular disease (CVD) risk, perceptions about physical activity and barriers experienced to perform physical activity, also stage of change to physical activity.

METHODS: The study design was an observational study, use qualitative methods with in-depth interviews and quantitative analysis CVD risk also stage of change to physical activity questionnaire.

RESULTS: Framingham 10-years CVD risk of obese men in University of Surabaya was 11.97% (1.70 to 29.90)

based on lipid profile, and 13.90% (2.30 to 30.00) based on body mass index. Perception of obese men in University of Surabaya regarding physical activity had findings several barriers that can be grouped into time constraint, facility constraint, low motivation, and knowledge about physical activities.

CONCLUSION: In this study we found that 10-years CVD risk of obese men in University of Surabaya can be categorized as medium risk. There are several barriers regarding life style modification for physical activity and exercise, whereas the subjects included in this study are quite ready to start the program, but improvement for the readiness before starting the program will still be needed.

KEYWORDS: CVD risk, obese men, physical activity

Indones Biomed J. 2015; 7(1): 43-8

Introduction

Obesity is a complex multifactorial chronic disease that develops from the interaction of genotype and environment. Obesity is essentially occurs from an imbalance between sedentary lifestyle with a high dietary intake of calories.(1)

The prevalence of obesity is higher in the group of the adult population more educated, and employees as a civil/military/police/officers.(2) Men have a greater risk of cardiovascular disease (CVD) than premenopausal women, but a woman's risk factors will increase five to ten years

postmenopause, thus becoming the same risk factors as men.(3)

Combating obesity is not only done with the cessation of food intake. Obesity prevention can be done either by lifestyle modification.(4,5) Physical activity or exercise has a great impact on reducing the risk of CVD. Interventions to modify lifestyle needs based on the theory or model that explains the people behavior, and can help to change the behavior by considering and identifying factors that affect the behavior.(6)

Obese people often have rarely healthy behaviors such as physical activity, especially sports, because there are several barriers.(7,8) In order to profile among the